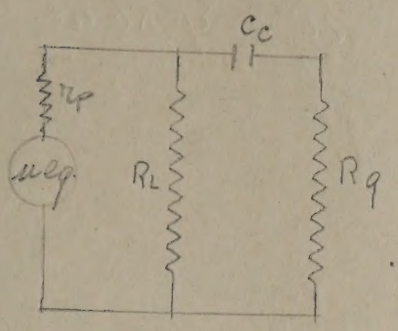
7. THE CATHODE BY-PASS CAPACITOR ACTS TO KEEP THE VOLTAGE DROPED ACROSS THE RESISTOR, CONSTANT BY CHARGING ON THE UPWARD-CHANGE OF PLATE CURRENT AND DISCHARGING ON THE DOWNWARD CHANGE.

8.

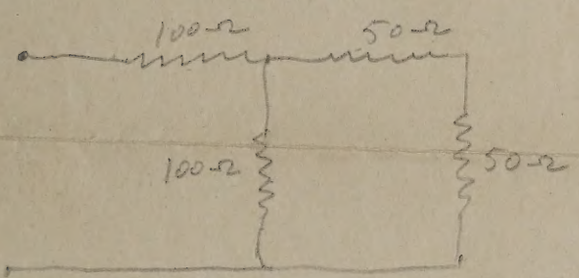


9. $R_L = 100\,K$ - e_g 2 VOLTS - i_p 1.15 ma

$e_p = 100\,K \times 1.5\,ma = 150$ VOLTS

GAIN $= \frac{150}{2} = 75$

10



$R_T = 150\,\Omega$

11. $R_L = \frac{300}{.008} = 37.5\,K.$

$e_g = 4$ V. A.C. R.to P.

e_p signal $= i_p \times R_L = 2\,ma \times 37.5\,K = 75$ VOLTS

Gain $\frac{75}{4} = 18.75$

Bias $= -4$ VOLTS

B+ SUPPLY $= 300$ D.C.

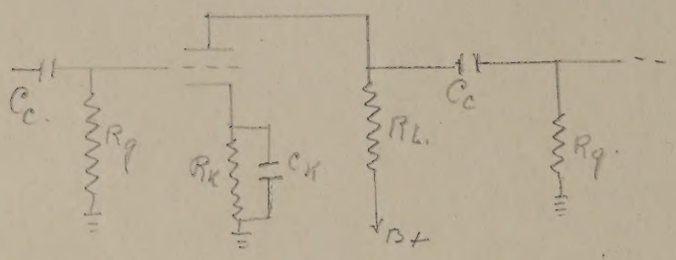
TEST

LUCAS, AGUSTIN.

① a $r_p = \frac{\mu}{g_m}$; b $\mu = r_p \times g_m$; c $g_m = \frac{\mu}{r_p}$

d. GAIN $= \frac{e_{out}}{e_{in}}$ e $A_v = \frac{\mu R_L}{r_p + R_L}$ f $\mu = r_p \times g_m$.

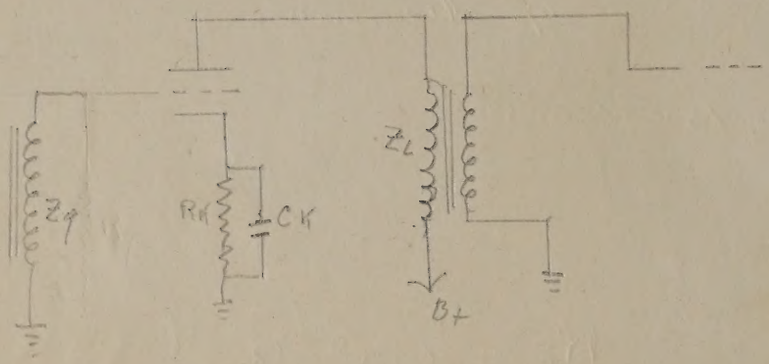
②



80

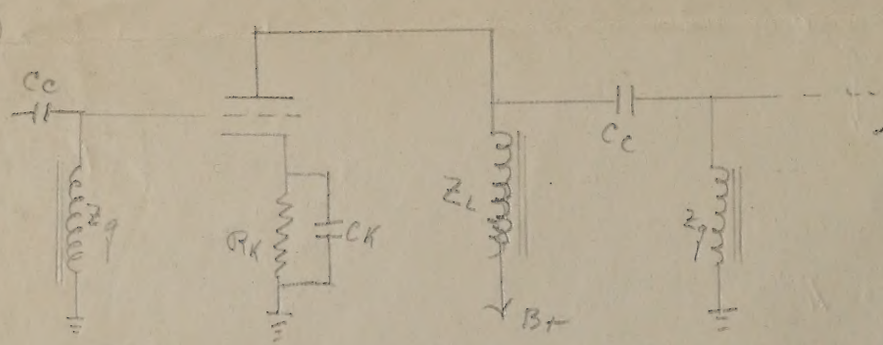
4

③

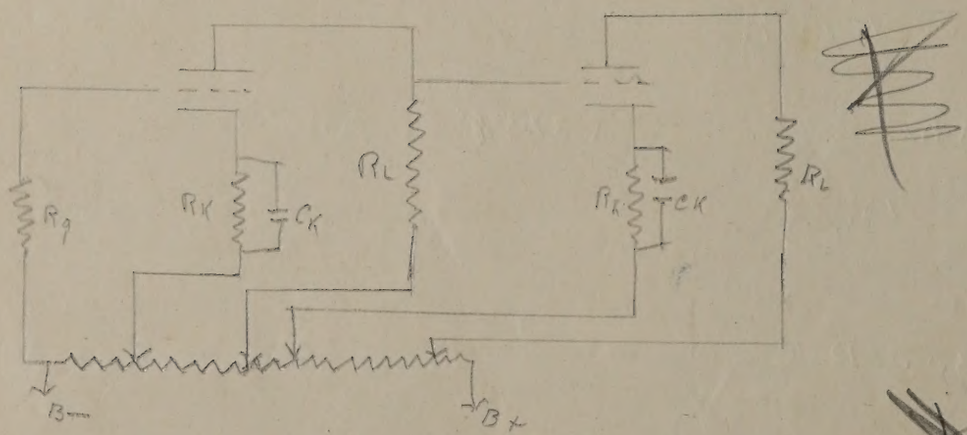


88

④



⑤



⑥ a CATHODE BIAS - OBTAINED BY THE PLATE CURRENT FLOWING THROUGH THE CATHODE RESISTOR, MAKING THE GRID NEGATIVE WITH RESPECT TO CATHODE.

b FIXED BIAS - OBTAINED FROM THE POWER SUPPLY, AT SOME POINT MORE NEGATIVE THAN THE CATHODE.